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**United States Patent** [19]

Gobeli

[11] Patent Number: **5,768,003**[45] Date of Patent: **Jun. 16, 1998**[54] **SPATIAL LIGHT MODULATOR AND METHOD**[75] Inventor: **Garth W. Gobeli, Albuquerque, N. Mex.**[73] Assignee: **Complex Light Valve Corporation, Albuquerque, N. Mex.**[21] Appl. No.: **555,494**[22] Filed: **Nov. 8, 1995**[51] Int. Cl.<sup>6</sup> ..... **G02F 1/03**[52] U.S. Cl. .... **359/254; 359/322**[58] Field of Search ..... **359/252, 254, 359/322, 323, 258, 255**[56] **References Cited****U.S. PATENT DOCUMENTS**

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[57] **ABSTRACT**

A spatial light modulator including a thin layer of solid-state electro-optical material having parallel, opposite first and second surfaces, an elongated first electrode disposed on the first surface and a plurality of spaced, elongated second electrodes disposed on the second surface and generally perpendicular to the first electrode. The layer of solid-state electro-optical material has a thickness in the range of approximately 5 to 15 microns, and is composed of PLZT. In one embodiment, a plurality of thin regions of insulator are disposed on the first surface between portions of the first electrode and the electro-optical material.

**14 Claims, 3 Drawing Sheets**